

# WEIGHT AND BALANCE / TOLD

## C-172S

C-172S      N-  
 DATE:      SORTIE #  
 PIC:     

AIRCRAFT BASIC EMPTY WEIGHT

USABLE FUEL (PICK ONLY ONE, FULL OR TABS)

FULL: 53 GAL X 6 LBS/GAL

TABS: 35 GAL X 6 LBS/GAL

PILOT AND COPILOT

REAR PASSENGERS

BAGGAGE AREA 1 (120 LBS MAX)

BAGGAGE AREA 2 (50 LBS MAX)

START, TAXI, RUNUP FUEL

TAKEOFF WEIGHT / CG / MOMENT

MISSION FUEL (10 GAL X 6 LBS X #HRS)

LANDING WEIGHT / CG / MOMENT

WEIGHT (LBS)	ARM (IN)	MOMENT (IN/LBS)
+	X 48.0	+
+	X 37.0	+
+	X 73.0	+
+	X 95.0	+
+	X 123.0	+
-8.0	X 48.0	-384
-	X 48.0	-

CG (IN) = SUM OF MOMENTS / SUM OF WEIGHTS

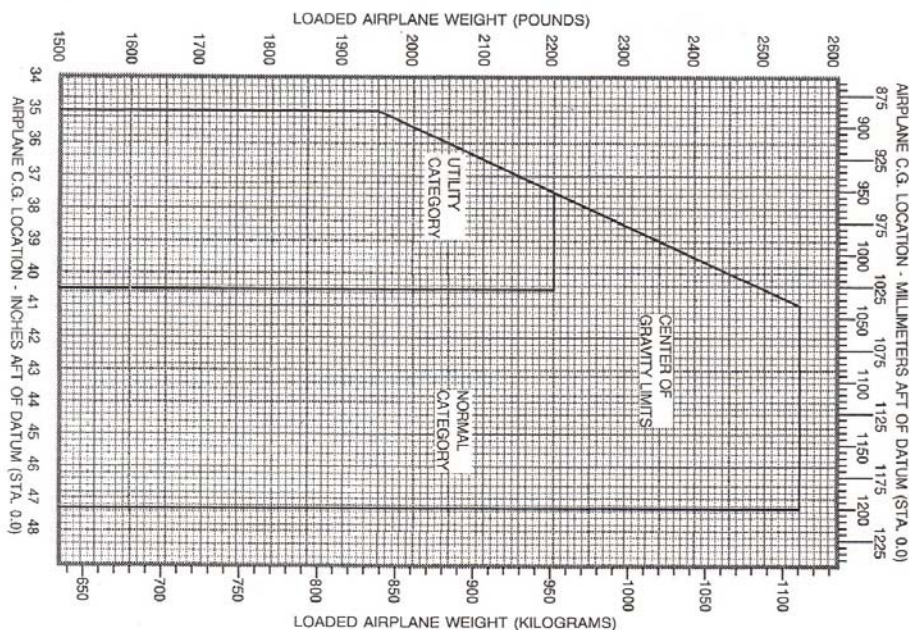
WRITE TAKEOFF AND LANDING CG IN ARM COLUMN ABOVE, MARK ON DIAGRAM BELOW

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Figure 6-8. Center of Gravity Limits

0585C1008

May 30/00



SECTION 6  
 WEIGHT & BALANCE / EQUIPMENT LIST

CESSNA  
 MODEL 172S

SECTION 5  
PERFORMANCECESSNA  
MODEL 172SCESSNA  
MODEL 172SSECTION 5  
PERFORMANCE**SHORT FIELD TAKEOFF DISTANCE  
AT 2550 POUNDS****CONDITIONS:**

Flaps 10°  
Full Throttle Prior to Brake Release  
Paved, level, dry runway  
Zero Wind  
Lift Off: 51 KIAS  
Speed at 50 Ft: 56 KIAS

C-172S	N-
TEMP	
PA	
TO DIST	
LND DIST	

	Press Alt In ' Feet	0°C			10°C			20°C			30°C			40°C		
		Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Roll Clear 50 Ft Obst	
	S. L.	860	1465	925	1575	995	1690	1070	1810	1150	1945					
	1000	940	1600	1010	1720	1090	1850	1170	1990	1260	2135					
	2000	1025	1755	1110	1890	1195	2035	1285	2190	1380	2355					
	3000	1125	1925	1215	2080	1310	2240	1410	2420	1515	2605					
	4000	1235	2120	1335	2295	1440	2480	1550	2685	1660	2880					
	5000	1355	2345	1465	2545	1585	2755	1705	2975	1825	3205					
	6000	1495	2605	1615	2830	1745	3075	1875	3320	2010	3585					
	7000	1645	2910	1785	3170	1920	3440	2065	3730	2215	4045					
	8000	1820	3265	1970	3575	2120	3880	2280	4225	2450	4615					

**NOTES:**

1. Short field technique as specified in Section 4.
2. Prior to takeoff from fields above 3000 feet elevation, the mixture should be leaned to give maximum RPM in a full throttle, static runup.
3. Decrease distances 10% for each 9 knots headwind. For operation with tail winds up to 10 knots, increase distances by 10% for each 2 knots.
4. For operation on dry, grass runway, increase distances by 15% of the "ground roll" figure.

Figure 5-5. Short Field Takeoff Distance (Sheet 1 of 3)

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**SHORT FIELD LANDING DISTANCE  
AT 2550 POUNDS****CONDITIONS:**

Flaps 30°  
Power Off  
Maximum Braking  
Paved, level, dry runway  
Zero Wind  
Speed at 50 Ft: 61 KIAS

	Press Alt In Feet	0°C		10°C		20°C		30°C		40°C	
		Gnd Roll Ft	Total Ft To Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Clear 50 Ft Obst	Gnd Roll Ft	Total Ft To Clear 50 Ft Obst
S. L.	545	1290	565	1320	585	1350	605	1380	625	1415	
1000	565	1320	585	1350	605	1385	625	1420	650	1450	
2000	585	1355	610	1385	630	1420	650	1455	670	1490	
3000	610	1385	630	1425	655	1460	675	1495	695	1530	
4000	630	1425	655	1460	675	1495	700	1535	725	1570	
5000	655	1460	680	1500	705	1535	725	1575	750	1615	
6000	680	1500	705	1540	730	1580	755	1620	780	1660	
7000	705	1545	730	1585	760	1625	785	1665	810	1705	
8000	735	1585	760	1630	790	1670	815	1715	840	1755	

**NOTES:**

1. Short field technique as specified in Section 4.
2. Decrease distances 10% for each 9 knots headwind. For operation with tail winds up to 10 knots, increase distances by 10% for each 2 knots.
3. For operation on dry, grass runway, increase distances by 45% of the "ground roll" figure.
4. If landing with flaps up, increase the approach speed by 9 KIAS and allow for 35% longer distances.

Figure 5-11. Short Field Landing Distance

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